

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

*Ex parte* JEFFREY OWEN KEPHART,  
RICHARD BRIAN SEGAL and STEVE RICHARD WHITE

Appeal No. 2005-1091  
Application No. 09/061,706

ON BRIEF

Before BARRETT, OWENS, and SAADAT, *Administrative Patent Judges*.  
OWENS, *Administrative Patent Judge*.

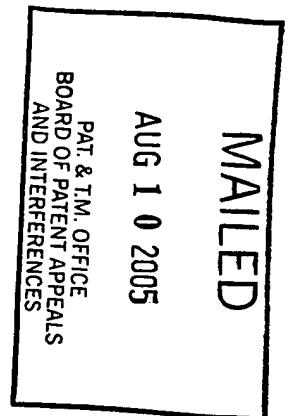
DECISION ON APPEAL

This appeal is from a rejection of claims 11, 13-21, 23-33 and 37-68, which are all of the pending claims.

THE INVENTION

The appellants claim an automated method and a machine-readable program storage device for assisting a user with categorizing electronic documents into a collection. Claim 11, which claims the method, is illustrative:

11. An automated method of assisting a user with the task of categorizing electronic documents into a collection, comprising the steps of:



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classifying, with a classifier, a document to obtain a plurality of most likely categorical labels;

deriving a plurality of categorizations shortcuts from the plurality of most likely categorical labels;

displaying, to the user, a representation of the plurality of most likely categorical labels;

receiving, from the user, a selection of one or more of the most likely categorical labels representative of the document to be categorized within a collection;

labeling the document within the collection with one or more of the selected categorical labels; and

incrementally retraining the classifier to adapt to modifications of the collection, wherein the incremental retraining is performed using a lazy strategy for incrementally retraining the classifier.

#### THE REFERENCES

Lewak et al. (Lewak)	5,544,360	Aug. 6, 1996
Lang et al. (Lang)	5,867,799	Feb. 2, 1999
Herz	6,029,195	(filed Apr. 4, 1996) Feb. 22, 2000 (effective filing date on or before Dec. 5, 1997)

Warren Ernst, *Using Netscape* 54, 55, 66, 67 (Que Corp. 1995) (Netscape).

#### THE REJECTIONS

The claims stand rejected under 35 U.S.C. § 103 as follows:

claims 11, 13-21, 23-33, 44, 45, 47-51 and 60-68 over Lewak in view of Herz; claims 37-43 and 46 over Lewak in view of Herz and Lang; claims 52 and 56-59 over Lewak in view of Herz and

Netscape; and claims 53-55 over Lewak in view of Herz, Lang and Netscape.

*OPINION*

We reverse the aforementioned rejections.

Each of the appellants' independent claims (11 and 61) requires incrementally retraining a document classifier to adapt to modifications of a collection of documents, wherein the incremental retraining is performed using a lazy strategy.<sup>1</sup>

Lewak discloses a method for classifying files wherein "[a]fter a number of files have been categorized, word patterns in categorized files can be correlated to the category descriptions. This information can be used to automatically assign (or simply suggest) category descriptions to new and existing uncategorized files" (col. 9, lines 51-55).

The examiner argues (answer, page 25):

It is respectfully noted that a "lazy strategy" is a term of art generally defined as actions to be performed only when needed and only to a certain extent. Since Lewak's File Control Manager running in the background of a session checks the paths of files and performs (initial) categorization if necessary during periods of idle (i.e. periods of inactivity - without user interaction), this teaching can be

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<sup>1</sup>The appellants' specification states that "[l]azy learning makes it possible to perform the classifier update during a moment when that update is less likely to hurt performance, for example when the user's machine is relatively idle" (page 19, lines 9-11).

reasonably interpreted as a "lazy strategy" for initially categorizing files.

The portion of Lewak that pertains to that argument is (col. 7, lines 55-67):

Typically, from within an application, the user will open a file (or, having created a new file, will make the first save to disk), at which time the FC [File Control] system extension, running as a background process, will detect that action and store the path to the file in common memory. The FC Manager, running as a concurrent process, during "null events" (i.e., periods of inactivity) will retrieve this path from common memory and check the path against a list of already categorized files. If the file has not yet been categorized, the FC Manager will automatically categorize the file with the special category "Uncategorized", and notify the user that there are files to be categorized.

That automatic categorization of a file during periods of inactivity is limited to designating the file as "uncategorized". For a suggestion to incrementally retrain Lewak's classifier the examiner relies upon Herz (answer, page 5).

Herz discloses a system that automatically constructs (1) a target profile for each target object such as a news article in electronic media based, for example, on the frequency with which each word appears in an article relative to its overall frequency of use in all articles, and (2) for each user, a target profile interest summary which describes the user's interest level in various types of target objects (col. 1, lines 18-27). "The

system then evaluates the target profiles against the users' target profile interest summaries to generate a user-customized rank ordered listing of target objects most likely to be of interest to each user so that the user can select from among these potentially relevant target objects, which were automatically selected by this system from the plethora of target objects that are profiled on the electronic media" (col. 1, lines 27-34). "Each user's target profile interest summary is automatically updated on a continuing basis to reflect the user's changing interests" (col. 7, lines 16-18).

The examiner argues (answer, page 5):

Herz teaches a method of categorizing text messages utilizing a user target profile interest summary, said summary is automatically updated on a continuing basis (Herz column 7 lines 15-17; compare with claim 11 "incrementally retraining a classifier to adapt to modifications of the collection."). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the method of Herz to the method of Lewak, because of Herz's taught advantage of updating profiles, providing a way to keep a user profile updated so that it dynamically responds to changing interests (Herz column 7, lines 16-18).

What Herz updates is the user's target profile interest summary, not the document's target profile. The examiner argues that "[t]he updating of said user interest profile (on a continuing basis) is used to 'retrain' Herz's ranking process,

and is applied to Lewak's categorization process accordingly" (answer, page 25). The examiner, however, does not provide evidence or reasoning which shows that the applied prior art would have led one of ordinary skill in the art to apply a method for updating a user interest profile to the retraining of a document classifier. The record indicates that the motivation relied upon by the examiner for modifying the applied prior art in that manner comes from the appellants' disclosure rather than coming from the applied prior art. Thus, the record indicates that the examiner used impermissible hindsight in rejecting the appellants' claims. See *W.L. Gore & Associates v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984); *In re Rothermel*, 276 F.2d 393, 396, 125 USPQ 328, 331 (CCPA 1960). Consequently, we reverse the examiner's rejections.<sup>2</sup>

#### DECISION

The rejections under 35 U.S.C § 103 of claims 11, 13-21, 23-33, 44, 45, 47-51 and 60-68 over Lewak in view of Herz, claims 37-43 and 46 over Lewak in view of Herz and Lang, claims 52 and 56-59 over Lewak in view of Herz and Netscape, and

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<sup>2</sup> The examiner does not rely upon Lang or Netscape for any disclosure that remedies the above-discussed deficiency in Lewak and Herz.

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claims 53-55 over Lewak in view of Herz, Lang and Netscape, are reversed.

*REVERSED*

*Lee E. Barrett*  
LEE E. BARRETT )  
Administrative Patent Judge )  
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*Terry J. Owens*  
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